Legislative Audit Division

State of Montana

Report to the Legislature

June 2007

Performance Audit

Characteristics of the Population Served at Montana State Hospital

Department of Public Health and Human Services
Addictive and Mental Disorders Division

Information contained in this report highlights differences between Montana State Hospital (MSH) public pay and private pay patients. For example, we conclude:

- **Similar percentages of public and private pay patients are admitted to MSH for the primary types of commitment.**
- **Lengths of stay vary.**
- **Private pay patients are younger and more likely to be referred from the criminal justice system.**
- **Public pay patients are readmitted more often.**

This report also identifies needed enhancements to reported MSH population information.

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June 2007

The Legislative Audit Committee
of the Montana State Legislature:

This is our performance audit of the characteristics of the Montana State Hospital (MSH) population. Based upon questions posed by a Legislative interim committee and the Department of Public Health and Human Services, we analyzed the similarities and differences between MSH public pay and private pay patients. This report provides conclusions in those areas. We also make one multi-part recommendation for enhancing management information, which includes establishing performance measures.

We wish to express our appreciation to all Department of Public Health and Human Services, Montana State Hospital, Legislative Branch, and Community Mental Health Care Center personnel, and mental health stakeholders for their cooperation and assistance during the audit.

Respectfully submitted,

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Legislative Audit Division

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Department of Public Health and Human Services
Addictive and Mental Disorders Division

Members of the audit staff involved in this audit were Misty Wallace, Kent Wilcox, and Mike Wingard.

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Characteristics of the Population Served at Montana State Hospital (MSH)

Information reported about the MSH population could be enhanced.

Audit Findings

Analysis of MSH population characteristics shows **differences exist between public pay and private pay patients**. Public pay patients are individuals enrolled in one or more publicly funded health insurance-type programs such as the Medicaid Mental Health Program (Medicaid), Medicare, and/or Mental Health Services Plan. Private pay patients are individuals with private insurance or no insurance coverage. We found:

- Similar percentages of public and private pay patients are admitted to MSH for the primary types of commitment.
- Lengths of stay at MSH vary.
- Private pay patients are younger and more likely to be referred to MSH from the criminal justice system.
- A higher percentage of public pay patients are referred to MSH from inpatient/residential providers with specialized mental health units.
- Public pay patients are readmitted to MSH more often.

A limited amount of data is available about private pay patients and the services they receive within Montana's mental health system, other than information collected during their stay at MSH. Based on our review of 110 MSH patient files, some information relative to patient characteristics is not compiled into automated records. **The significance of this uncollected and unanalyzed information is its relevance to comprehensively understanding the MSH population, gaps in mental health services at the local level, and related census issues**. The rising census has been a budget and policy concern for several years. It is our general observation the MSH census is growing proportionately to the number of persons served in Montana's entire mental health system. Based on our analysis, MSH serves approximately three percent of individuals enrolled in Medicaid and the Mental Health Services Plan and one percent or less of total consumers of mental health services in Montana.

Audit Recommendation

The Department of Public Health and Human Services and MSH could enhance program management at MSH. Our recommendation addresses expanding the collection, analysis, and reporting of info about the population served and establishing performance measures considering MSH patient admission trends and outcomes (see p.23).

In addition to the characteristics of the population served at MSH, we recognize many factors outside of MSH contribute to continuing census issues, ranging from individuals' insurance to availability of local resources. To more thoroughly answer questions related to MSH admissions and move beyond some of the general assumptions made in this report, additional audit work and/or studies would have to be conducted relative to pre- and post-MSH mental health care. For these reasons, **we provide a list of potential further study areas of Montana's mental health system** (see p.26-29).

Chapter I – Introduction and Background

Introduction

After the 2005 Legislative Session, the Legislative Audit Committee authorized a performance audit of mental health services in Montana. Prior to beginning audit planning, we learned an interim legislative committee was established to study specific aspects of the mental health system. To avoid duplication of effort and potentially assist the Children, Family, Health and Human Services Interim Committee (committee), we monitored meetings and the testimony provided by various stakeholders.

One of the most prominent topics in terms of committee deliberations was how to address managing the Montana State Hospital (MSH) census and how community-based mental health services affect the census. As a result of committee deliberations and our discussions with Department of Public Health and Human Services (DPHHS) personnel, we determined the audit should examine the overall MSH census and compare the characteristics of what is termed the private pay population with the public pay population at MSH. Throughout this report, we use the terms population and census interchangeably as they both indicate a total number or count of individuals at MSH.

Audit Scope and Objectives

Audit scope consisted of reviewing two fiscal years (2004 and 2005) of patient admission data. Fiscal year 2006 data was not readily available in the same format as fiscal years 2004 and 2005 data, which was compiled from multiple automated information systems. To obtain information not input by DPHHS into automated information systems, we reviewed a sample of private pay patient files. We also compared data from file reviews to information from existing databases.

Our audit objectives were to determine what, if any, differences exist between the private pay and public pay populations at MSH and to identify if enhancements could be made regarding information collected and analyzed about the MSH population.

Chapter I – Introduction and Background

Distinguishing MSH Private Pay and Public Pay Patients

Private pay patients are individuals with private insurance or no insurance coverage. For purposes of this report, public pay patients are enrolled in one or more publicly funded health insurance-type programs such as the Medicaid Mental Health Program (Medicaid), Medicare, and/or Mental Health Services Plan.

Audit Direction Developed in Conjunction with the Department

According to the department, the private pay population has a significant impact on the MSH census. During preliminary audit work, department officials informed us and the Interim Committee that limited data exists in DPHHS automated information systems about the private pay population at MSH, since they are typically not enrolled in public programs prior to MSH admission. Currently, the department's best source of data for private pay patients is data contained in MSH patient files. However, department officials indicated manually gathering information from MSH patient files would take more time and resources than they currently had available. To better serve Montana's mentally ill population, the department wanted to know if the public pay and private pay populations differ. Overall, we determined a review focusing on MSH patient characteristics could potentially provide the legislature with additional insight on the MSH census and overall mental health system.

Audit Approach

To answer audit objectives, we conducted the following audit work:

- Reviewed applicable statutes, rules, and regulations.
- Followed Children, Family, Health and Human Services Interim Committee deliberations.
- Attended DPHHS listening tours around the state and the statewide MetNet video conference on mental health issues.
- Interviewed staff from multiple divisions within DPHHS, Legislative Services and Fiscal divisions, Montana State Hospital, Mental Disabilities Board of Visitors, and Community Mental Health Centers.
- Verified and analyzed information compiled from multiple DPHHS management information systems about MSH patients for two fiscal years.
- Reviewed a statistical sample of MSH private pay patients' admission files (110).

- Attended the 2006 Montana Conference on Mental Illness.
- Conducted internet research on mental health care issues at the national level and in various other states.
- Reviewed the results of one prior Interim Committee study on Montana's public mental health care system and one contracted study, the 2001 Technical Assistance Collaborative report.

Background

Montana's adult mental health system is comprised of public and private sector providers. The Addictive and Mental Disorders Division (AMDD) within DPHHS oversees the adult mental health system. The mission of AMDD is to implement and improve an appropriate statewide system of prevention, treatment, care, and rehabilitation for Montanans with mental disorders or addictions to drugs or alcohol. The division directly manages MSH. The remaining services are provided by private community-based providers on a fee for service and contractual basis. Within the division, the Mental Health Services Bureau is responsible for development and oversight of the state's system for delivering and reimbursing publicly funded adult mental health services.

Financing of Adult Mental Health Services

Financing of Montana's mental health system comes from various public and private sources. At the community level, mental health centers receive:

- Direct Mental Health Services Plan funding through a contract with AMDD for a specified amount each fiscal year.
- Reimbursements from Medicaid, Medicare, various private insurances, and private pay individuals.
- Funding from counties for emergency type services.
- Grants from various entities.
- Funds as a result of fundraising efforts targeting private entities in the community.

At the state institutional level, MSH is primarily funded from the General Fund. However, reimbursements are collected from several sources for individuals' costs of care while at MSH. Reimbursement rates range from 25 to 35 percent of actual costs billed and reimbursements come from counties, individuals, Medicare,

Medicaid, and various private insurance companies. The following section discusses publicly funded insurance-type programs. We are designating these programs as insurance-type programs because they work similar to private insurance plans and the department lists these programs as insurance coverage in patient files and in reimbursement-related databases.

Publicly Funded Insurance-Type Programs

Patients eligible for publicly funded services are low-income individuals with severe disabling mental illness (SDMI). There are three primary publicly funded insurance-type programs in Montana serving adults with SDMI. We did not include the Indian Health Services (IHS) program for tribal members. A small portion of MSH admissions have IHS coverage.

- **Medicaid Mental Health Program (Medicaid)** is the largest of the three and serves over 13,000 Montanans. The bulk of program funds are for community-based mental health services. Medicaid eligibility is based on earning less than 100 percent of the Federal poverty level. As defined by Medicaid criteria, MSH is an Institution of Mental Disease. As such, Medicaid will not cover the costs of care at MSH for individuals age 22-65, which is primarily the population served.
- **Medicare** is federally funded, has various coverage plans that may require beneficiaries to pay co-payments and premiums, and has lifetime benefit limits. Medicare eligibility is based on a variety of factors such as age, disability, and employment history. Since Medicare is a federal program, AMDD does not report information regarding the total number of Montanans served in this program for mental health care. Depending on the plan, Medicare can cover mental health related services and prescription drugs for individuals between the ages of 22 and 65, with certain disabilities, such as SDMI.
- **Mental Health Services Plan** provides community-based mental health care through contracts with community mental health centers to approximately 5,300 severely mentally ill adults who are uninsured or underinsured and earn less than 150 percent of the federal poverty level income designation. This state funded program has no inpatient hospital benefit. It is capped, thus limiting the amount and type of services a person can receive within a defined time period. For example, the pharmacy benefit is capped at $425 per month.

Montana State Hospital

MSH is a 209-bed (includes transitional and long-term care beds) state psychiatric hospital located in Warm Springs. This is the only publicly operated inpatient psychiatric hospital in the state. Expenditures for fiscal year 2006 were approximately $27 million and included 406 full-time employees. MSH provides inpatient psychiatric services to adults who have serious mental illnesses requiring intensive treatment and rehabilitation not available in local communities. The mission of MSH is to stabilize individuals with severe mental illness and return them to the community, if adequate support services are available. The role of MSH is to provide those services necessary for transition to community care, as components in a continuum of publicly and privately funded programs emphasizing treatment in the least restrictive environment.

Admissions to MSH

Individuals are admitted to MSH for short-term crisis stabilization detentions and/or longer commitments. Individuals are referred for admission by sources within the mental health system. Referral sources are numerous and vary depending on the individual and community. The sources referring individuals for admission to MSH help identify mentally ill individuals in need of services, secure detention, and/or possible commitment. Typical referral sources include:

- Emergency rooms and psychiatric wards of private hospitals.
- Community mental health care centers.
- County jails/law enforcement.
- The Department of Corrections.
- Family members.
- County attorney/judges.
- Tribal courts.

According to procedures outlined in law, individuals are admitted to MSH in three commitment statuses:

- Civil Detention
- Involuntary or Voluntary Commitment

- Forensic Commitment

More information relative to the characteristics of each commitment status are discussed in Chapter II. Applicable statutes are found in Montana Code Annotated, Title 53, Chapter 21 for civil detention/commitments and Title 46, Chapter 14 for forensic commitments. Civil commitment law specifies individuals be detained or committed to the least restrictive environment. Due to limited resources and options at the community level, MSH is often the least restrictive option available.

MSH Programs

Montana State Hospital operates eight treatment units with the following designated programs:

- A Unit – Social and Independent Living Skills (acute psychiatric care).
- B Unit – Adaptive Livings Skills (geriatric and other specialized needs).
- D Unit – Management of Legal Issues (forensic).
- E Unit – Social and Independent Living Skills (forensic and extended psychiatric care).
- Spratt – Coping Skills.
- Residential Care Unit (forensic and awaiting community placement).
- Johnson House (group home).
- Mickleberry House (forensic group home).

Individuals are admitted to the program that will best meet their needs based on information available at the time of admission. All treatment programs are co-occurring capable meaning substance abuse problems are also identified and treated.

Report Organization

The following chapters address audit objectives and identify audit findings:

- Chapter II discusses MSH population characteristics.
- Chapter III addresses enhancing information reported about the MSH population.
- Chapter IV provides information about additional MSH census related issues.

Chapter II – Analysis of MSH Population Characteristics

Introduction

This chapter discusses our analysis of Montana State Hospital (MSH) population characteristics by comparing the admission data of the public pay and private pay populations. We also provide conclusions in this chapter to questions posed by the Department of Public Health and Human Services (DPHHS) about the MSH population. Our audit approach included a comparison of data from 110 private pay patient files at MSH to information contained in automated information systems. In addition to data analysis, we discussed MSH admission issues and related matters with community mental health center staff.

Conclusions on Total MSH Population Analysis

In fiscal years 2004 and 2005, there were over 1,200 total admissions to MSH. Of those 1,200 admissions, 978 were different individuals (19 percent of overall admissions reported in this two-year period were individuals who had been admitted to MSH more than once in the two-year period reviewed). For analysis purposes, the population was separated by consumer type and summarized as:

- 726 public pay patients (558 Medicaid/Mental Health Services Plan, 168 Medicare).
- 383 private pay patients (290 with no insurance, 93 with private insurance).
- 91 forensic commitments (34 percent had a previous discharge date from MSH).

Types of Commitment

One admission characteristic analyzed to compare public pay and private pay patients was admissions based on types of commitment. All MSH patients are admitted, based on one of three commitment types. The following paragraphs explain commitment designations and typical lengths of stay for each designation.

Civil Detentions

Civil Detentions are individuals with a mental illness in need of secure crisis stabilization, who are admitted to MSH in a pre-commitment status, pending a commitment hearing. This commitment designation is also referred to as a court

ordered/emergency detention admission. Within a 1-5 day timeframe, a commitment hearing is held and the person is either civilly committed (involuntarily) to MSH or sent home. This population is approximately 50-60 percent of all MSH admissions. Additionally, 40 percent of these admissions are discharged by the court in 10 days or less.

Involuntary and Voluntary Commitments

Involuntary and voluntary commitments are individuals civilly committed to MSH. The number of voluntary commitments is almost non-existent. Involuntary commitments can be short-term or long-term, depending on the person's illness and progress with treatment. For example, some involuntarily committed patients stay for 30 days and others stay for several years (with an average length of stay of 44 days). These commitments are approximately 30-40 percent of all MSH admissions.

Forensic Commitments

Forensic commitments are individuals who have committed a crime and, based on the severity of their mental illness, are sentenced to MSH because they are unfit to proceed at trial, found guilty but mentally ill, not guilty by reason of mental illness, or are at MSH for a court-ordered evaluation. These commitments are approximately 5-10 percent of all MSH admissions. The number of forensic-related admissions to MSH is relatively stable each fiscal year. However, forensically committed patients are a factor in the MSH census because they currently make up approximately 39 percent of the population (an increase from 23% in fiscal year 2003). These patients' lengths of stay (average 450 days) are greater than other admissions. For analysis of the public pay versus private pay populations in the following sections, we excluded the 91 forensic commitments from further study.

Conclusion: Similar Percentages of Admissions

For private pay and public pay patients, we found the two populations are similar in the manner they are admitted to MSH. These similarities are illustrated in Table 1.

Table 1

MSH Admissions
Fiscal Years 2004-2005

Admissions	Public Pay Patients	Private Pay Patients
Civil Detentions	63%	67%
Involuntary Commitments	34%	29%

Source: Compiled by the Legislative Audit Division from DPHHS records.

Conclusion: Lengths of Stay Vary

Lengths of stay at MSH are important because they affect the hospital's capacity for new admissions. The following table depicts length of stay comparisons between public pay and private pay patients, regardless of their commitment designation.

Table 2

MSH Lengths of Stay
Fiscal Years 2004-2005

Length of Stay	Public Pay Patients	Private Pay Patients
10 Days or Less	17%	28%
Six Months or Longer	20%	9%

Source: Compiled by the Legislative Audit Division from DPHHS records.

Table 2 suggests:

- A higher percentage of private pay patients stay 10 days or less.
- Public pay patients are more likely to stay six months or longer.
- An equal percentage (63 percent) of public and private pay patients stay between 10 days and six months.

Conclusion: Private Pay Patients Are Younger

Using information from DPHHS information systems, we created the following table denoting additional similarities and differences between public pay and private pay population characteristics.

Table 3

MSH Comparison of Age, Gender, and Referral Sources

Fiscal Years 2004-2005

Areas of Comparison	Public Pay Patients	Private Pay Patients
Age		
Over 40	57%	40%
Under 40	43%	60%
Gender		
Female	47%	44%
Male	53%	56%
Admission Referral Source		
Outpatient Provider	11%	9%
Inpatient/Residential Provider (Includes Medical Facilities with Specialized Mental Health Units)	29%	23%
Inpatient/Residential Provider (General Medical Facilities)	45%	47%
Criminal Justice System	14%	22%
Other Human Services Agency	2%	0%

Source: Compiled by the Legislative Audit Division from DPHHS records.

Table 3 illustrates:

- Private pay patients are younger and more likely to be referred to MSH from the criminal justice system.
- A higher percentage of public pay patients are referred to MSH from inpatient/residential providers with specialized mental health units.

An example of an inpatient/residential provider with a specialized unit is a hospital with a psychiatric ward. For gender and referral sources, the two populations appear to have similar characteristics.

Conclusion: Public Pay Patients Are Readmitted More Often

Another admission characteristic analyzed for the public and private pay populations was the overall number of times individuals were admitted to MSH. Table 4 depicts the percentage of individuals with a previous discharge date from MSH and number of individuals admitted more than once in the two year period used for analysis purposes (fiscal years 2004 and 2005).

Table 4

MSH Readmissions
Fiscal Years 2004-2005

Readmissions	Public Pay Patients	Private Pay Patients
Previous Discharge Date	60%	18%
Multiple Admits in a Two Year Period	24%	10%

Source: Compiled by the Legislative Audit Division from DPHHS records.

Table 4 suggests:

- Individuals were admitted to MSH multiple times.
- For private pay patients, it is more likely to be their first admission to MSH.
- Public pay patients appear to be readmitted more often than private pay patients.

Some Patient Record Information Not Compiled in Automated Records

While some private pay patient data is incorporated into automated information systems, there is information about pre-admission patient characteristics that can only be manually obtained from patient files. By reviewing 110 MSH private pay patient files, we found these records contain data relative to patients' history, which the department may want to begin compiling into automated records. The following table illustrates characteristics about private pay patients not presently compiled in the department's automated records.

Table 5

MSH Characteristics of Private Pay Patients
Fiscal Years 2004-2005

Characteristic	Yes	No	Information Unavailable
History of Substance Abuse*	65%	25%	10%
Substance Abuse Directly Related to Admission*	31%	50%	19%
Criminal History*	48%	35%	17%
Received Mental Health Related Services Previously*	80%	14%	6%
Discharged with a Supply of Medications (# of days supply varied)	20%	80%**	N/A
Veterans	8%	N/A	N/A
Non-Residents	7%	N/A	N/A

**Data limitations exist with information from MSH files specific to patients' histories, as it is self-reported.*
***Discharged with a prescription for medications.*
N/A=Not Applicable
Source: Compiled by the Legislative Audit Division from DPHHS records.

Conclusion: Public and Private Pay Populations Can Be Analyzed Further

While reviewing public pay versus private pay characteristics, we found these population designations could be further analyzed to identify unique details of subset populations. For example, we analyzed the Medicare subset population by itself (which is part of the public pay population), and found the following:

- 70 percent are male and 30 percent are female.
- 80 percent are over age 40, with 21 percent of those individuals over age 64, and 20 percent under age 40.
- 50 percent have a previous discharge date from MSH, which is lower than the public pay trend but higher than private pay trends. This also means the public pay trends for individuals having a previous discharge date from MSH increases to 64 percent when the Medicare population is excluded.

These characteristics of the Medicare population are not identified in a combined analysis of private pay versus public pay patients. In general, we found each population of patients, based on insurance coverage status, has unique characteristics.

Chapter II – Analysis of MSH Population Characteristics

Summary

Overall, our analysis addresses the audit objective of whether differences exist between the private pay and public pay populations at MSH. It also helps define the population served at MSH. We found more categories of information relative to patient characteristics are available in patient files compared to information contained in automated information systems. Detailed analysis of population information could also provide new data not identified in a broad-based analysis. The significance of this "uncollected" and "unanalyzed" information is its relevance to comprehensively understanding the MSH population and addressing related census issues. The next chapter addresses information reported by the department and discusses advantages that could be realized by compiling and analyzing more information about the population.

Chapter III – Reported MSH Population Information Could Be Enhanced

Introduction

One reason the Department of Public Health and Human Services (DPHHS) requested more information about private pay patients at Montana State Hospital (MSH) was to get a more complete picture of the population served. MSH collects, analyzes, and reports a great deal of information about its population; however, we believe a more complete "picture" of the MSH population can be developed. This would enhance overall management information concerning MSH.

Collecting additional categories of information about the MSH population could be beneficial to better manage the census and for developing other community-based prevention and aftercare services. The following sections describe some limitations that can and do affect the department's management information about the population. We provide several conclusions throughout this chapter, leading to one multi-part recommendation addressing our overall concerns with management information. Examples in this chapter were derived from our review of data from both automated information systems and MSH patient files.

Information on MSH Patients Exists in Multiple Systems and Can be Conflicting

Information about MSH patients can be found in multiple information systems (systems) within DPHHS. Information exists on multiple systems for various reasons related to organization of the department, different functions between divisions, and patients being served in overlapping or related programs. All of these systems serve different purposes and are updated for their specific area, when necessary. As a result, they can contain differing information about individuals at MSH. For example, the total number of MSH admissions per fiscal year differs depending on the system used to retrieve the count. We determined more data integrity analysis could be conducted and we identified some discrepancies with reported information.

Data Analysis Could Be Expanded

MSH analyzes and reports some of the information contained in its patient management database. This database is intended for use as an electronic medical records system for treatment purposes, but also is

used as an administrative-type information system. However, not all of the information contained in this system is analyzed and reported similar to our analysis. Therefore, MSH is limiting its capability to analyze patient information.

Results from Limiting Analysis and/or Using Multiple Systems

The following provides examples of the effects of limiting analysis of patient information and/or from utilizing information from multiple systems.

- Twenty-six individuals in a two-year period were listed more than once for the same admission due to compiling information from multiple systems and potential data entry errors.
- MSH reports counties sending the most individuals to MSH and to where those individuals are discharged. Because MSH does not include the individual's actual county of residence in its report, this data is not completely accurate. For example, of 110 MSH patient files reviewed, we found 22 percent were admitted from a different county than their county of residence and 27 percent were discharged to a different county than their county of residence. DPHHS uses this information to identify counties referring the most individuals to MSH for admission and to target increased community-based mental health services in those areas.
- MSH does not analyze or report information about admissions for individuals who are non-residents or homeless. In our file review, we found seven percent of MSH patients were non-residents. In community level interviews, one provider described having to include a local address for homeless individuals in order to meet the legal obligations of commitment proceedings. As a result, they usually list the mental health center's address as the person's address. This means the county of residence listed for some MSH patients could be inaccurate and the percentage of non-residents or homeless individuals could be even higher than noted in patient files.
- Patients are listed as having less insurance coverage in one database than another and when compared to information contained in patients' files. In our file review, we identified 12 individuals listed as having no insurance coverage who were actually tribal members with Indian Health Services (IHS) coverage. We also found 16 individuals listed as private pay patients with no coverage who were enrolled in the Mental Health Services Plan by the time they were discharged from MSH due to the proactive work of MSH staff. Overall, these

figures indicate 25 percent of private pay patients in our sample had either IHS or Mental Health Services Plan coverage upon discharge from MSH and therefore, would be considered public pay patients. The significance of this information is there may be less private pay patients at MSH than reported by the department and the new insurance information should be updated in automated information systems.

- The department reports 50 percent of all MSH patients are private pay patients. However, we found this figure included the Medicare population. For various reasons, the department categorizes the Medicare population with the private pay consumer population. We reviewed the reasoning and, based on audit work, did not agree with this approach. Excluding the Medicare population, the actual number of individuals at MSH with private insurance or no insurance, as we defined private pay patients, is approximately 32 percent for fiscal years 2004 and 2005. Additionally, our file review suggests this percentage further decreases as individuals become enrolled in publicly funded insurance programs during their stay at MSH.
- The department is creating more integrated mental illness treatment programs. Presently, MSH does not compile data on reasons for patient admissions. Collecting information about the role of substance abuse, criminal justice system interaction, and suicide attempts relative to MSH admissions could be used to help manage admissions in coordination with overlapping programs, as these are areas of current policy interest.

Resources Focus on Treatment

Discussions with DPHHS personnel at the division level and at MSH indicate the focus of past data collection, analysis, and reporting was on patient treatment and associated resource utilization. Because of the department's emphasis, only limited resources are utilized to compile outcome data or establish performance measures. Ideally, a management information system is effective when:

- Pertinent information is identified, captured and communicated.
- Reporting of information is accurate and reliable.
- Ongoing monitoring activities are in place.
- Measurable goals and objectives exist.
- Reporting systems measure achievement of objectives.

Existing studies also show a need for more comprehensive data collection. In 2001, the department contracted with the Technical Assistance Collaborative, Inc. (TAC) for an independent study of Montana's mental health system. The TAC report concludes AMDD has good data, but it should be analyzed and used for performance analysis and planning. The report also highlights the need for system outcome and performance indicators to drive data collection and reporting activities. We believe our audit work takes the recommendations in the TAC report one step further by specifically identifying areas of data collection and analysis to provide a more focused direction on MSH management information for DPHHS.

Our review suggests the department plans to increase its emphasis on management information related to the MSH population by identifying in its strategic plan the following areas:

- Clearly understanding the population to be served.
- Defining uses of its institutions and associated populations.
- Improving data and performance.
- Improving the use of data in service delivery management.

Performance Measurements are Needed

The department planned for and expected to reduce the MSH to funded capacity (175) for the past several years. This goal was not achieved and the census continues to rise. Performance measurement is part of an effective management control system needed to provide managers with tools to evaluate results and effectively and efficiently achieve goals and objectives. Organizations should not only fully understand their mission, goals, and objectives, but also the performance data used to measure accomplishment of those goals and objectives. We believe the department could improve measuring MSH performance through expanded review of patient admission trends data, population characteristics, and patient outcomes.

Performance measures include input, output, and outcome measures.

- **Input measures** show resources, either financial or otherwise, used for a specific service or program. Examples are budget allocation, number of employees, and number of admissions.
- **Output measures** show units produced or services provided by a service or program. Examples include number of patients treated and released, and lengths of stay.
- **Outcome measures** show results of services provided by assessing program impact and effectiveness and whether expected results are achieved.

The department and MSH currently track and report some input and output measures, but could improve management controls by creating and reporting outcome measures as described in the next section.

Monitoring Patient Outcomes to Measure MSH Performance

One area of performance measurement is monitoring and evaluating patient outcomes. MSH tracks admissions as an overall population, but could improve information reported by monitoring additional admission characteristics of individual patients. For example, one person was admitted to MSH eight times in fiscal years 2004 and 2005. Collecting and reporting this type of information could help to identify key factors leading patients to return to MSH, and guide policy makers towards better identifying and targeting related gaps in services. Specific examples of performance measures related to patient outcomes could include details about readmissions, such as:

- Of 1,200 MSH admissions, 222, or approximately 19 percent were individuals admitted more than once in fiscal years 2004 and 2005, and 45 percent were previously admitted to MSH at least once in the past. MSH only reports number of admissions and does not provide a count of total number of unduplicated individuals admitted within a given timeframe. MSH could start reporting numbers of individuals readmitted as well as number of initial admissions.
- MSH has decreased lengths of stay for patients since the late 1990's. If information was generated regarding the percentage of individuals returning to MSH to compare with decreasing lengths of stay data, the comparison might suggest a need for increased examination by DPHHS of relationships between

MSH admission trends and aftercare received upon discharge from MSH.

- If MSH analyzed its information by number of individuals admitted and readmitted, in addition to total number of admits, it may show many of the short-term crisis stabilization patients return at a later date for additional crisis stabilization and/or longer stays. For example, one public pay individual was admitted to MSH multiple times in fiscal years 2004 and 2005; several times on an emergency or court ordered detention and once on an involuntary commitment. This person stayed at MSH a range of 1 day to 223 days for each of those admissions. For those same years, MSH reported this information solely as several "admits" in total admission/census counts.

Further examples of potential MSH performance measures not currently tracked include:

- Some private pay patients become eligible for public pay services during their stay at MSH or shortly thereafter, due to the eligibility-determination efforts of MSH staff. Currently, MSH does not track or report these figures.
- The department reports 50 percent of all MSH patients had no prior contact with Medicaid or the Mental Health Services Plan programs. The department collects information related to individuals who applied for these programs and were denied, but does not include these individuals in its statistics. In fiscal years 2004 and 2005, approximately 1,500 individuals applied for the Mental Health Services Plan but were denied eligibility. Realistically, these additional 1,500 individuals had contact with the mental health system, but were not counted as having contact with the system.
- The Montana Mental Health Nursing Care Center (MHNCC) reports 60 percent of fiscal year 2006 admissions are from MSH. However, MSH does not report how many patients it discharges per year to MHNCC and/or to the Montana Chemical Dependency Center. DPHHS oversees all three of these institutions and has experienced census issues periodically at each one.
- It is our general observation the MSH census is increasing proportionately to a growing number of individuals served in Montana's mental health system. In the past six fiscal years, MSH admissions were approximately 3 percent of the total number of individuals receiving Medicaid Mental Health Plan (Medicaid) and Mental Health Services Plan services in Montana, as both figures continue to grow. However, this

measurement only compares the census to the number of persons enrolled in these two programs, which excludes a large portion of those served in Montana's mental health system such as private pay consumers.

More Comprehensive Information is Needed

Overall, we found the department has more information about MSH patients than it is currently reporting. We believe data collection, analysis, and reporting of information about the characteristics of MSH patients could be enhanced and expanded. This could include establishing clear definitions for how county of residence is determined for MSH patients and communicating the information to stakeholders. The department recently developed a new strategic plan, which identifies areas of improvement similar to our audit findings. The department also hired a data analyst and now has the infrastructure in place to extract data from multiple DPHHS management information systems for analysis purposes. We believe our findings provide direction to the department for how to start effectively utilizing this new position and related infrastructure for enhancing program management.

Recommendation #1

We recommend the department and MSH enhance program management at MSH by:

A. Expanding information collected, analyzed, and reported about the population served.

B. Establishing performance measures that measure MSH patient admission trends and outcomes.

Chapter IV – Additional MSH Census Related Issues

Introduction

This audit focused on Montana State Hospital (MSH) population characteristics. However, we believe MSH census issues are more global because they are also the result of many factors outside of MSH. Additionally, information related to the MSH census is used to help monitor the performance of Montana's mental health system and to initiate changes in services provided throughout the system. For these reasons, this chapter further addresses our second objective of enhancing information about the MSH population. Specifically, it discusses the characteristics of the overall MSH census, contributing factors to admissions, and the potential need for further study to more comprehensively address the census in relation to Montana's overall mental health system.

Why is the MSH Census an Issue?

In recent years, managing the MSH population is a recurring concern as the census continues to rise. The Department of Public Health and Human Services (DPHHS) budget requests for the next biennium, as well as several related goals and objectives in its current strategic plan, all centralize around managing the census and controlling entry to MSH. MSH is regularly overpopulated relative to the number of available beds and resources. The 2005 Legislature appropriated enough funds to support an average daily census (ADC) of 175. MSH is consistently experiencing an ADC of 190 or more. MSH experienced budget cost overruns in fiscal year 2006 of approximately $4 million, mainly due to an increasing census and appropriations for 36 new full-time employees authorized to address the census. In addition to cost overruns, being above licensed bed capacity (189) threatens licensure, potentially impacts patient care, and reduces insurance reimbursements for individuals placed on unlicensed/uncertified units. We did not examine the fiscal impacts of placing patients in these units or licensing issues.

Factors Contributing to the MSH Census Vary

In the previous chapters, we discussed admissions to MSH, but did not speak to contributing factors affecting MSH admissions and the overall census. Characteristics identified as potential contributing factors come from MSH patient files, trend analysis, legislative

hearing testimony, interviews, and review of existing mental health related programs and include:

- **Individual characteristics** such as income, psychiatric diagnosis, level of participation in voluntary treatment programs, an individuals' type of insurance coverage, substance abuse, employment, family support, and housing situations.
- **Community level characteristics** such as availability of resources, transient populations, state policy issues affecting community care, minimal secure care facilities, and lack of professional providers.
- **Characteristics** of the forensic population at MSH (see page 10).

Based on interviews and our analysis of MSH population characteristics, we believe gaps in services at the local level do exist for underinsured and uninsured individuals. If an individual has no insurance and/or is underinsured, yet is above established poverty levels, access to community-based services is limited or non-existent. Individuals with a higher level of insurance-type coverage, such as Medicaid, differ from underinsured and/or uninsured individuals at the community level in the area of access to services for private providers, community mental health centers, hospitals, medication, housing, and other public pay programs.

Potential Further Study Areas of Montana's Mental Health System

Viewing the MSH census in the context of Montana's entire mental health system helps to better define census issues such as showing the census is proportional to a growing number of individuals served in the overall mental health system. To more thoroughly answer questions related to contributing factors to MSH admissions and specifically identify gaps in services and/or existing procedural limitations beyond general assumptions made in this report, additional audit work and/or studies would have to be conducted at the community level relative to pre- and post-MSH mental health care. Examples identified during this audit are explained below.

Contractual Relationship between Department and Community Mental Health Centers

Based on audit work, it is clear program and service priorities at the community level are funding-dependent and are offered based on the philosophies of community level managers in terms of treatment approaches. This scenario could be creating inequities across the state for individuals receiving mental health services at Community Mental Health Centers (CMHC), especially for Mental Health Services Plan recipients. For example, some communities have waiting lists for services and some do not. Various communities also have different methodologies and criteria for prioritizing individuals on waiting lists for services. Additionally, initial review of contracts between these entities shows performance measures are unclear or non-existent. A performance audit of the contractual relationship between DPHHS and the CMHC could review contracts and funding mechanisms, compare services provided at each CMHC, identify best practices for what is working in various communities, and potentially identify alternatives or options at the local level for keeping individuals out of MSH. This audit could also review how claims for publicly funded services are submitted and paid to mental health centers.

Tribal Ordered Commitments to Montana State Hospital

MSH accepts commitments of tribal members with a tribal order. Neither statute nor Administrative Rules of Montana contain provisions relative to this practice, and there is no formal agreement between MSH, the tribes, or Indian Health Services (IHS). While conducting audit work at the Institutional Reimbursement Office of DPHHS, we identified several potential issues related to this practice. Current reimbursement procedures are cumbersome, result in delayed reimbursements to the General Fund, and are creating rapport issues between the IHS and the department. Additionally, one potential compliance issue was referred to our financial-compliance auditors to examine during the next DPHHS financial audit.

Staffing at Montana State Hospital

A staffing evaluation of MSH could determine if staffing for patient admissions effectively and efficiently meets census issues and patient needs. A large percentage of patient admissions are on Friday evenings or weekends when most mental health specialists are off

duty. MSH pays staff overtime to return, as needed. There is a potential need for a staffing evaluation due to admission trends, staffing schedules, and continually increasing census. In fiscal year 2005, MSH paid over $488,000 in overtime pay. In fiscal year 2006, overtime pay was $796,000, which is an increase of over 60 percent from fiscal year 2005. MSH also received appropriations for 36 new FTE in fiscal year 2006 to aid efforts towards reducing the census below its ADC of 190 in fiscal year 2005. However, the ADC increased to 199 for fiscal year 2006.

Coordination of Aftercare for Discharged Individuals

Audit work identified potential issues with aftercare coordination for individuals discharged from MSH including medication management, communication between MSH and community level providers, and different treatment approaches used at MSH versus the community level. Type and amount of aftercare can have a direct impact on the wellbeing of individuals as well as the MSH census. For example, this audit report highlights how cyclic the MSH population can be. An audit could examine interaction between MSH and the CMHC regarding individuals released from MSH.

Mental Health Services Plan Coverage

The reported amount of outpatient mental health care services provided at CMHC for Mental Health Services Plan recipients and billed to the program was $7 and $8 million in fiscal years 2005 and 2006 (unaudited), with approximately $3 million not reimbursed. This indicates uncompensated care was reportedly provided by these entities. Providing mental health services reimbursed at approximately 60 percent may impact business operations, services available, recruitment and retention of community-level professionals, and threaten the contractual relationship between DPHHS and the CMHC, which is a primary component of Montana's mental health system. A performance audit of the Mental Health Services Plan program could examine funding, how uncompensated care is determined by CMHC, and review the services provided at the community level for the amount of funds received.

The Institutional Reimbursement Office at DPHHS

A performance audit of the Institutional Reimbursement Office could conduct a workload analysis and examine changes in processes resulting from the implementation of House Bills 395 and 121 passed by the 2005 Legislature and termination of a long-standing contract with IHS. According to the department, the workload for this office increased by approximately 30 percent as a result of these procedural changes. Institutional reimbursement rates and amounts returned to the General Fund appear relatively low and average between 25-35 percent of actual costs billed. At the MSH level, all patients could be considered public pay patients because the State funds 66 percent or more of MSH patients' cost of care. Reimbursement rates at MSH from insurances and individuals raise questions. Table 6 highlights MSH reimbursements for patients' cost of care.

Table 6

MSH Reimbursement Rates for Patients' Cost of Care
Fiscal Years 2004-2006

	FY 2004		FY 2005		FY 2006	
	Billed	**Paid**	**Billed**	**Paid**	**Billed**	**Paid**
Medicare Part A	6,783,275	1,532,014	7,701,411	968,653	7,178,988	1,679,018
Medicare Part B	611,790	115,772	708,492	129,910	162,871	92,678
Medicaid	511,110	484,450	752,468	500,547	721,331	446,615
Insurance	1,288,882	401,796	1,562,415	616,021	952,431	641,600
Private	2,192,165	985,040	2,638,978	1,060,327	2,658,528	1,084,829
Totals	**$11,387,222**	**$3,519,072**	**$13,363,764**	**$3,275,458**	**$11,674,149**	**$3,944,740**
% of Costs Reimbursed		**31%**		**25%**		**34%**

Source: Compiled by the Legislative Audit Division from DPHHS records.

An audit of this function could assess whether current processes and resources could be enhanced to increase state General Fund reimbursements for costs at state institutions. Some of these concerns may be addressed in the next Legislative Audit Division financial-compliance audit of DPHHS.

Department Response

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES
ADDICTIVE AND MENTAL DISORDERS DIVISION

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June 8, 2007

Scott Seacat, Legislative Auditor
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Dear Mr. Seacat:

The Department of Public Health and Human Services – Addictive and Mental Disorders Division has reviewed the May 2007 Performance Audit regarding the Characteristics of the Population Served at Montana State Hospital. The audit findings make this recommendation:

Recommendation #1
We recommend the department and MSH enhance program management by:
A. Expanding information collected, analyzed, and reported about the population served.
B. Establishing performance measures that measure MSH patient admission trends and outcomes.

We concur. Improving management information about the population served at the Montana State Hospital is extremely important to the hospital and the overall mental health system. Likewise, the development of specific performance measures regarding patient admission trends and outcomes will be of utmost value to the mental health system in our collective pursuit of effective community-based services targeted at decreasing the need for inpatient services at Warm Springs.

While we agree wholeheartedly with the audit recommendation, we believe some tempering of expectations is in order. Information technology and information analysis resources at the Montana State Hospital are extremely lacking. The Montana State Hospital has only one staff member that would be classified as an information analyst. Therefore, while we agree with the recommendation, we must express our caution on how quickly the recommendation can be completed. At the August Legislative Audit Committee meeting we will be available to discuss a plan designed to accomplish the recommendation.

We sincerely appreciate the quality of the work done by Misty Wallace, Kent Wilcox, and Mike Wingard in developing the audit recommendation. Thank you.

Sincerely,

Joyce DeCunzo, Administrator

cc: Joan Miles, Director
John Chappuis, Deputy Director
Ed Amberg, MSH Administrator